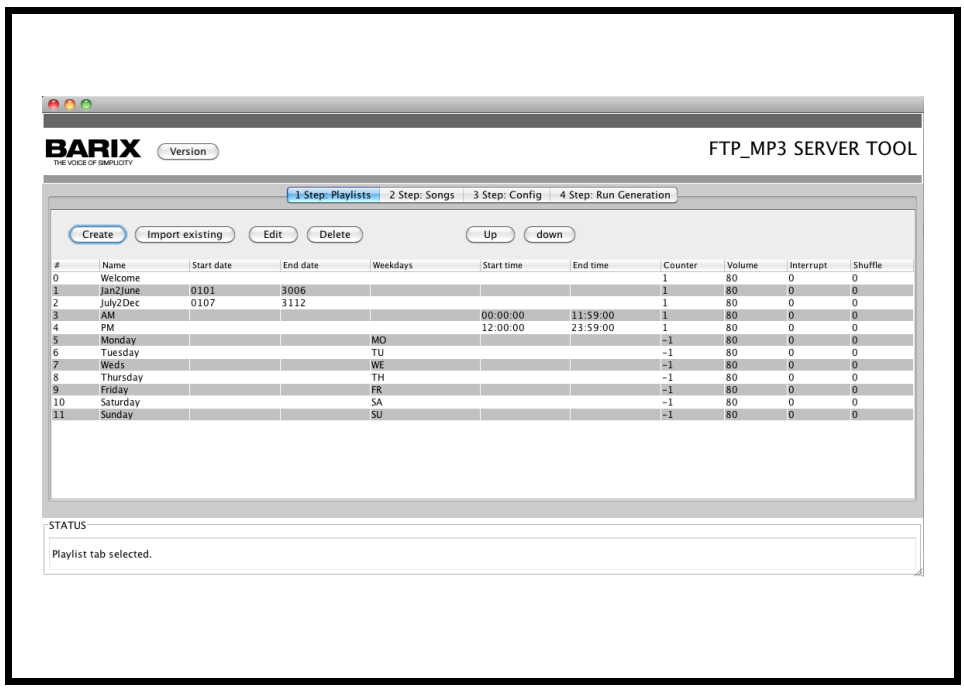
BARIX
THE VOICE OF SIMPLICITY

USER MANUAL

FTPMP3 Server Tool


BARIX
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Version
FTP_MP3 SERVER TOOL
1 Step: Playlists
2 Step: Songs
3 Step: Config
4 Step: Run Generation
Create
Import existing
Edit
Delete
Up
down
Name Start date End date Weekdays Start time End time Counter Volume Interrupt Shuffle
0 Welcome 1 80 0 0
1 Jan2June 0101 3006 1 80 0 0
2 July2Dec 0107 3112 1 80 0 0
3 AM 00:00:00 11:59:00 1 80 0 0
4 PM 12:00:00 23:59:00 1 80 0 0
5 Monday MO -1 80 0 0
6 Tuesday TU -1 80 0 0
7 Weds WE -1 80 0 0
8 Thursday TH -1 80 0 0
9 Friday FR -1 80 0 0
10 Saturday SA -1 80 0 0
11 Sunday SU -1 80 0 0
STATUS
Playlist tab selected.

Java Application: V2.11
Released: 06.03.2013

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1 Introduction

1.1 FTP MP3 Configuration Tool and its Intended Use

FTPMP3 Server Tool is designed with the purpose to facilitate user-friendly configuration and playlist generation for the ABCL FTP MP3 FW.

FTP MP3 FW is designed to play mp3 files from a USB stick on devices like Extreamer 100, enabling audio playback when devices are disconnected or connect to slower or less reliable networks. The application can download up to 100 playlists with their mp3 files from the Internet and play the audio content following highly flexible playback scenario. More detailed info can be found in [1].

A typical playback scenario involves switching between for example a big playlist for background music and several short playlists containing advertisements to be played at predefined time and weekday. To execute such a scenario the FTP MP3 Player requires a configuration file (Player.cfg) and special scheduling in the header line of every playlist file.

FTP MP3 configuration tool is a graphical java tool for creating the configuration files needed by the FTP MP3 FW. While Playlist headers and Player.cfg can also be created and edited with text editor, the FTPMP3 Server Tool provides an easier GUI-based alternative that can speed up configuration creation.

The typical usage scenario for the FTPMP3 Server Tool can be divided in the following consecutive steps :

1. Import of existing and creation of empty playlists with playback scheduling information.
2. Playlist editing, e.g. populating with mp3 files.
3. Player.cfg definition.
4. Final generation (with an option for ID3 tags removal) in which the Player.cfg and the audio content (defined playlists, music files and optional length information flies) are generated and stored in a selectable Output directory for upload to the Config and Media servers and direct copy on a USB stick.

The section below details the tool main features used to enable the above work flow.

1.2 Feature List

- Playlists GUI tab for creation and modification of scheduling parameters and priority of up to 100 music playlists.
  - Full import functionality (via player.cfg)
  - Individual playlist import functionality
- Songs GUI tab for importing mp3 files to playlists, mp3 list modifications and playback.
- Config GUI tab for Player.cfg creation and modification using a reduced (Basic mode) or full (Advanced mode) set of configuration parameters (see [1] for details about supported parameters).
  - Saving previous configuration
- Run Generation GUI tab for generation of a complete package (directory & files) containing: Player.cfg, playlists (*.m3u) and music files (*.mp3) for upload on Config and Media server, as well as direct use with a USB stick.
  - Generation of obfuscated mp3 names complying to the 8:3 name convention.
  - Generation of length files for the downloaded files as simple means for file integrity check.
  - ID3 tag removal.

1.3 About this Manual

Links to chapters

References to chapters (e.g. X Chapter name) are red and underlined and serve as direct links when viewed in Adobe Acrobat Viewer. Click on the link to jump to the referenced chapter, click on the left arrow icon to jump back to where you came from.

Bookmarks pane in Adobe Acrobat

The complete “Table of Contents” is available in Adobe Acrobat Viewer. Click on the “Bookmarks” pane tab on the left side of Adobe Acrobat Viewer to open it. Click on any bookmark to directly jump to the corresponding part of the manual.

Chapter overview

This manual is divided into the following chapters:

- Chapter Tool Installation describes how to install the FTPMP3 Server Tool.
- Chapter Sample Usage explains how to use the tool.
- Chapter Testing with FTP MP3 FW describes two possible scenarios to test the tool outcome with FTP MP3 FW.

2 Tool Installation

2.1 Installation

The FTPMP3 Server Tool application is distributed as a zip file (e.g. FTPMP3ServerToolV2.1.1.zip).

Make sure you have Java installed (JDK v1.5 or higher) for your operating system. If not sure check e.g: http://www.java.com/en/download/manual.jsp

and install Java.

Unzip the application in a location of your choice and make sure that you have proper user permissions to read and write file and directories for that location, otherwise the program will fail to start.

2.2 Starting the Application

On unzipping the package the directory FTPMP3ServerToolV2.0.0 is created with the FTPMP3APP.jar file inside.

Under windows and MAC OSX you can start the application by double-clicking on FTPMP3APP.jar from Windows Explorer or Finder.

Under linux open a Terminal and cd to the installation folder, then to start the application run the following command:

java -jar ./FTPMP3APP.jar

3 Sample Usage

After starting the application you are presented with the window shown in Illustration 1. You can check the tool version by clicking on the Version button in the top righ corner.

Please note that for data consistency purpose only one running instance of the tool is allowed for a given location. So if you need a second instance, install the tool at a different location.

All the GUI is organised as a Tabbed Pane control with 4 tabs.

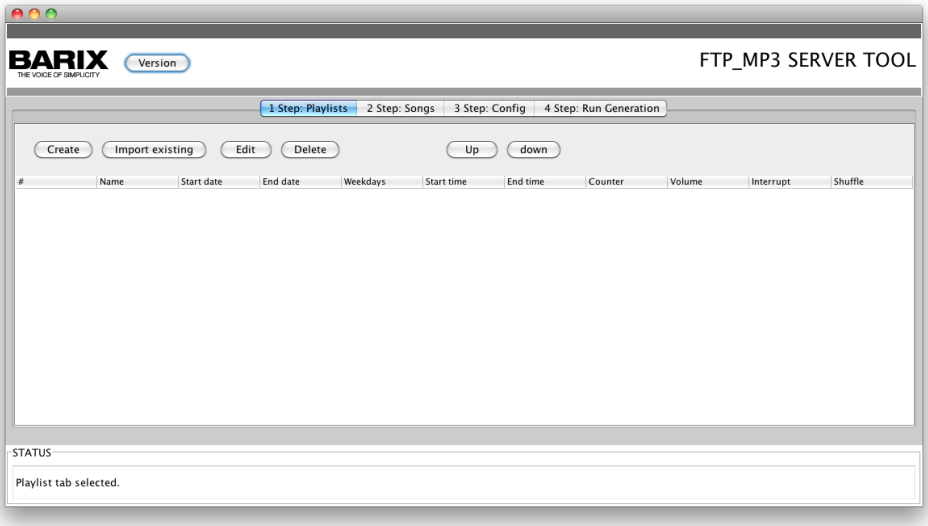
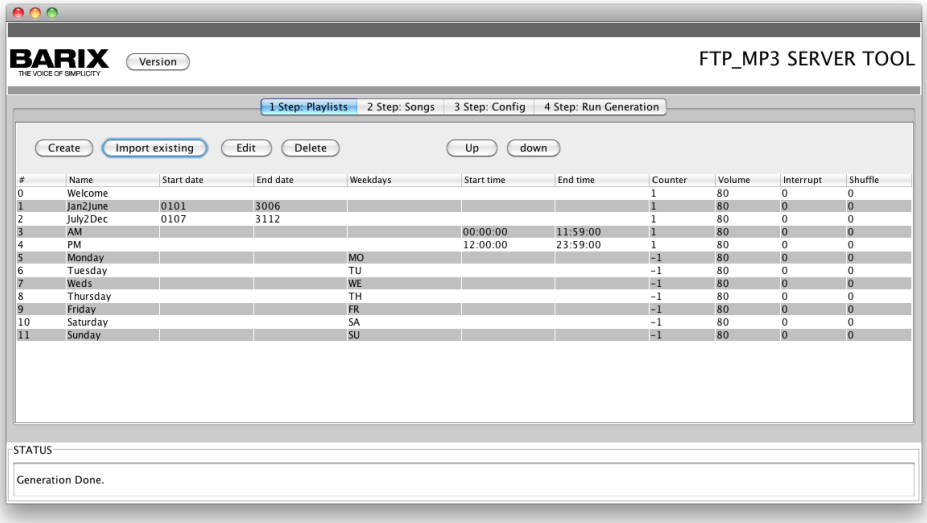


Illustration 1: FTP MP3 FTPMP3 Server Tool Main Window

3.1 1 Step: Playlists Tab

The Playlists tab (Illustration 2) is dedicated to creation and manipulation of music playlists (m3u files). You can add up to 100 playlists with the help of the available controls on that tab.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11 Sunday SU -1 80 0 0
STATUS
Generation Done.

Illustration 2: 1 Step: Playlists Tab

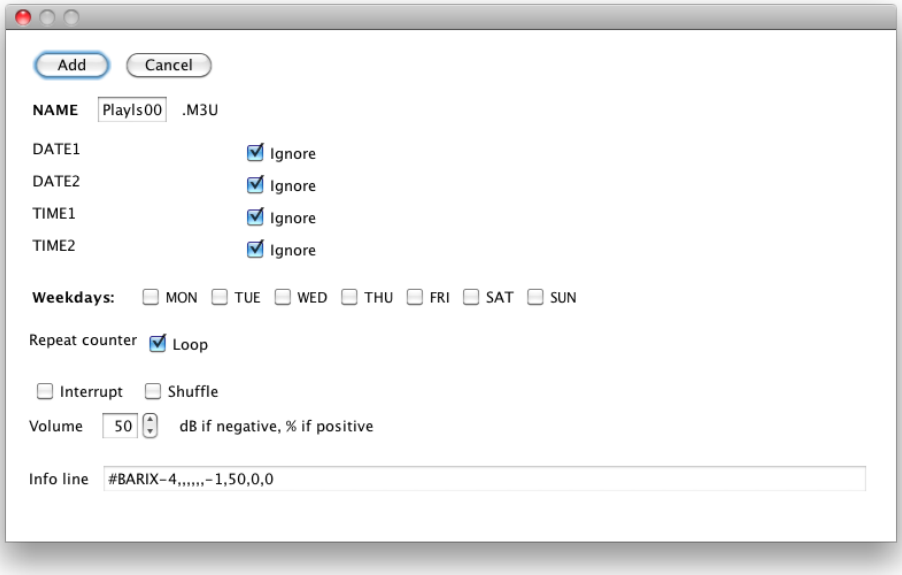

Illustration 3: Playlist Manipulation Window

Playlist Creation

Clicking on Create button will start that process via the playlist manipulation window (Illustration 3).

With the help of that window each playlist can be customised. You can adjust the Playlist name, DATE1/2 (start and stop date for list playback), TIME1/2 (start and stop time for list playback), playback weekdays, repetition counter, interrupt and shuffle switch and playback volume.

The final playlist header line is displayed in the Info line Text Area.

To add the playlist to the Playlists tab press on the Add button after being done with the schedule editing.

To quit the Playlist creation mode press on the Cancel button.

Playlist Import

Playlist can be added using the Import existing button.

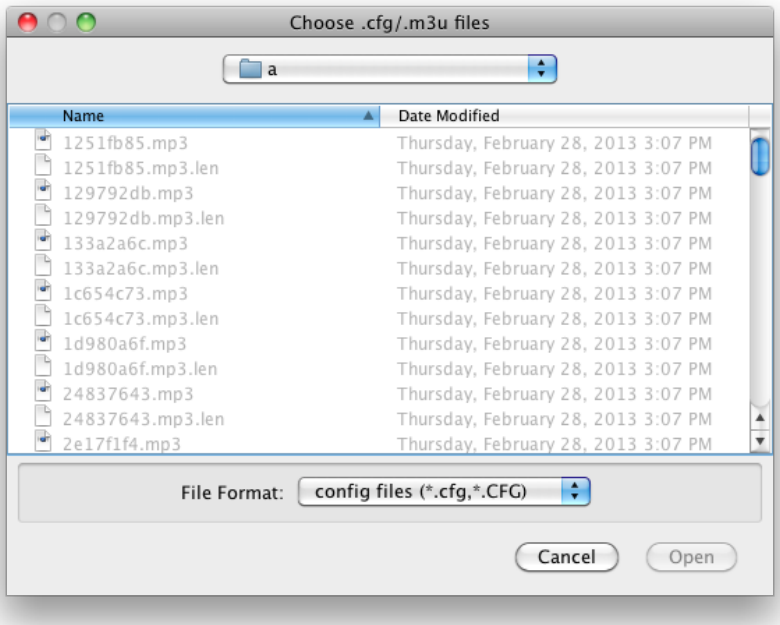

Illustration 4: Import Control

There are two import modes:

- Full import

In this mode you need to select File Format “config files (*.cfg, *.CFG)” and select a folder containg player.cfg file.

For the full import functionality to work correctly all the audio content (playlists and mp3 files) should be provided in the same directory as the player.cfg.

- Individual Playlists Import

  This mode is activated by selecting “m3u files (*.m3u, *.M3U)” as File Format option.

  in this mode you can add individual standard or previously generated playlists.

Playlist Editing
ITe Edit button can be used to change individual parameters of existing playlists. Make sure that you select a single list for edit. In that case, if the name field is changed, the changes will apply to an existing playlist with this name or if the name is new, the current playlist will be renamed.

Playlist Deletion
Use the Delete button to delete already defined playlist. Delete will work on the current selection.

Playlist Priority
Playlists' order corresponds to the priority in which every playlist is played. It can be changed with the Up/Down buttons.

3.2 2 Step: Songs tab

The Song tab is shown in Illustration 5. This tab is used to populate/edit previously created/imported playlists with songs (mp3 files). Please note that you can alternate between Playlists and Songs tabs to make the process incremental.

File Operations
Playlist population works by selecting existing mp3 files after clicking on the Import MP3 button. This opens a file chooser control, starting from your home folder. Songs will be included then for the playlist shown in the combo-box of the Songs tab.

List Edit
With the Cut button all currently selected songs will be deleted from the playlist. As alternative to using Import and Cut songs can be also rearranged with the help of the Up/Down buttons.

With the help of Import MP3 button you can also add the same song several times.

Playback
Every mp3 file in the list can be played/stopped using the Play/Stop buttons. To enable playback click on the Advanced check-box.

After pressing the Play button only the selected song is played. To stop the currently playing song you can also double-click on a new one, which will start playing the newly selected song.

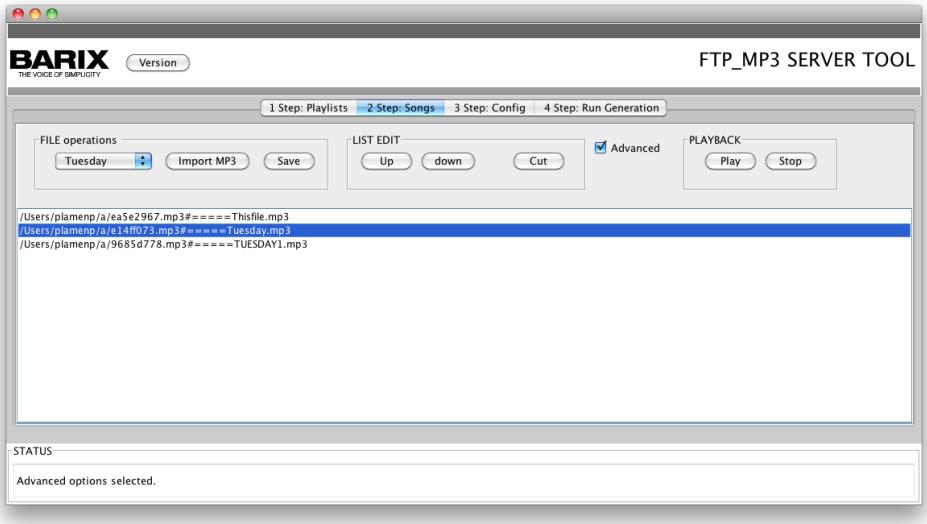

Illustration 5: 2 Step: Songs Tab

3.3 3 Step: Config Tab

This tab is shown in Illustration 6. It is dedicated to the creation and modification of Player.cfg file. Detailed description of the meaning for each configuration parameter can be found in [1] and is therefore out of the scope for this manual.

You can chose between Basic and Advanced View for the configuration parameters. After setting all parameters clicking on the Preview & Save button will show and save the content of the Player.cfg file in a tmp file CONFIG in the main application folder. CONFIG file is loaded next time the application is run, preserving in this way the last edit state. It will be overridden in the case of importing playlist via player.cfg (Full import).

Previous player.cfg information is preserved on the following application run w/o the playlists. Use individual playlist import or the full import to load playlists.

To see a list of all supported configuration parameters and their description press on the Help button.

The Playlist TextArea to the right will displays the first 50 playlists that are defined at the moment.

> NOTE: When defining the user directory in the case of FTP media and config server you can use absolute (e.g. /Users/*user_home*/ftpguest/music as well as relative locations (e.g. music). In the case of HTTP you need to add “~” in front of a relative location (e.g. ~user/music/) and add “/” backslash at the end of the directory name.

3.4 4 Step: Running Generation Tab

After the preparation of the playlists using the Playlist tab, populating the lists with music using the Songs tab, press the Run Generate button in the Run Generation tab (Illustration 7). This will generate the Player.cfg and copy it along with all defined M3U, mp3 and optional length information files in the location specified by the Output directory text field.

When the output folder is the same as the input (import) folder, files that are no longer in use by edited playlists will not be deleted.

On generation existing 8:3 mp3 file names are not re-scrambled (obfuscated).

If the “Remove ID3 tags” check box is selected ID3 tags will be removed in the generated mp3 files.

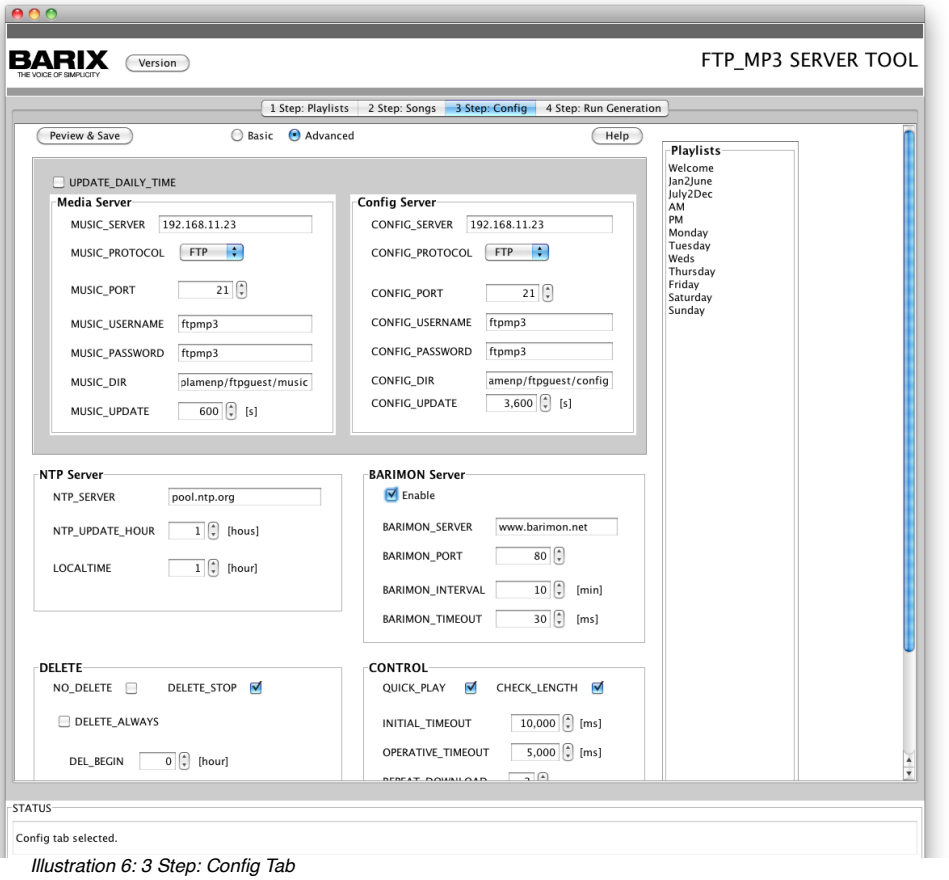

Illustration 6: 3 Step: Config Tab

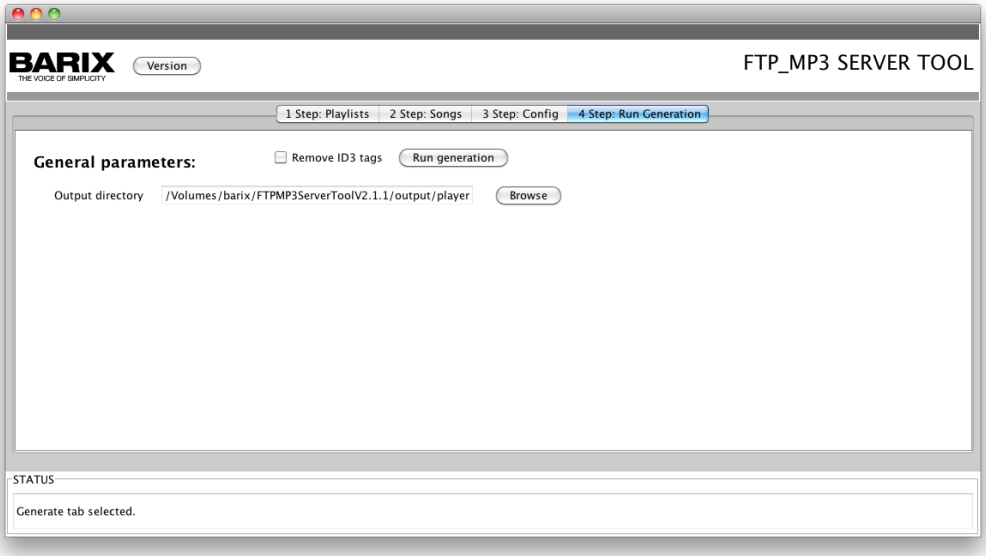

Illustration 7: 4 Step: Run Generation Tab

4 Testing with FTP MP3 FW

This chapter describes 2 typical usage scenarios intended to demonstrate the tool functionality.

4.1 Immediate playback

In order to verify your newly generated player content right away you can follow the steps below that specify a typical usage scenario in which background music is interrupted by some advertisements at predefined time slots:

1. Click on the Playlists tab and create 2 playlists: e.g. Backgr.m3u (background music) and Advert.m3u (publicity audio). Make sure names are 12 characters long at most in total for the application to accept them.
2. Edit the timings for the Advert.m3u, and move the list to first position.
3. Set Backgr.m3u to second position, enable the shuffle and loop properties for that list (Illustration 3). Do not add any DATE1/2 and TIME1/2 timings.
4. Populate Backgr.m3u and Advert.m3u with mp3 files of your choice . Use the Save button to save your changes!
5. In the Config tab select Basic mode and click on the UPDATE_DAILY_TIME check box. Select the desired update times. This step is done to bypass the initial config and playlist download step and enable faster playback.

   NOTE: When defining the user directory in the case of FTP media and config server you can use absolute (e.g. /Users/*user_home*/ftpguest/music as well as relative location (e.g. music). In the case of HTTP you need to add "~" in front of your relative location (e.g. ~user/music/) and add "/" backslash at the end of the directory name.
6. Press Run generate button in the Run Generation tab and copy the Output directory content on your USB stick.
7. Attach the USB stick to a compatible device with FTP MP3 firmware and power the device. You should hear the music playing after approximately half a minute booting time. Check that your Advert.m3u playlist pops-up in the time slots you assigned.

4.2 Download and play

In this scenario the goal is to make FTP MP3 player downloads all required playlist and mp3 files from Internet, check the file integrity using the file size information and play the playlists afterwards.

Depending on the size of the playlists and their configuration, playback in this scenario can take substantial time to start. In the case of testing to avoid delaying playback it is advisable to keep the size of the test playlists short. The procedure is as follows:

1. Download e.g. the Barix Demo package and unzip it, then Click on "Import Existing" and select player.cfg from the location of Barix Demo package.
2. In the Config tab make sure that UPDATE_DAILY_TIME check box is disabled and the CHECK_LENGTH check box is enabled. Set configuration for existing Media and Config Server settings.
3. Press Run generate button in the Run Generation tab and copy the generated Player.cfg in the player folder on the USB stick.
4. Upload Player.cfg and Player.cfg.len to the predefined directory location on the Config server.
5. Upload all music files (*.mp3, *.mp3.len, *.m3u, *.m3u.len) to the predefined directory of the Media Server.
6. Attach the USB stick to a FTPMP3 device and make sure device is connected to Internet. Power the device and wait for the music download to finish. Playback should start as soon as the current song of the active playlist is downloaded.

5 References

[1] Alexander Simeonov, “FTP MP3 Player: Store-and-play audio player for Barix audio decoding hardware.” Application User Manual, Released 28.09.2012.

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6 Legal Information

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